

**DATE:        SEPTEMBER 11, 2006**

**TO:         ALL INTERESTED PARTIES**

**RE:         M.V. ELWHA PROPULSION**  
**CONTROL SYSTEM REPLACEMENT**  
**CONTRACT NO. 00-7171**

**ADDENDUM NO. 6**

**CONTRACT**  
**RFP Volume I**

**TECHNICAL SPECIFICATIONS**  
**RFP Volume II**

**ATTACHMENTS TO THE TECHNICAL SPECIFICATIONS**  
**RFP Volume III**

Attached hereto and incorporated herein are revisions to the RFP Contract, Technical Specifications and Attachments to the Technical Specifications documents.

All other terms and conditions remain unchanged. All proposers will be required to acknowledge receipt of this Addendum on a re-submitted Financial and Schedule Proposal Form. All Addenda will become a part of the Contract.

Sincerely,

Ben Dietz  
Legal Services / Contracts Development Mgr.

Attachments

## **ATTACHMENT TO ADDENDUM NO. 6**

### **CONTRACT RFP Volume I**

#### **DELIVERY AND MILESTONE SCHEDULES Exhibit 3**

The Delivery and Milestone dates have been extensively revised due to a delay in the completion of currently ongoing work on the M.V. Elwha unrelated to the Contract Work.

A revised RFP Contract Exhibit 3 is attached hereto and incorporated herein. The revised Exhibit 3 incorporating the above revisions supersedes and replaces the previously issued Exhibit 3.

### **TECHNICAL SPECIFICATIONS RFP Volume II**

#### **PROPULSION CONTROL SYSTEM TECHNICAL REQUIREMENTS Section 5.0**

##### **General Description Section 5.1**

Page 10, third paragraph. Delete the last sentence, which reads:

“(The control transfer PLC shall be allowed in non-redundant form.)”

## **STATIC POWER CONVERTERS**

### **Section 5.7**

#### **Armature Control Modules (ACM's)**

##### **5.7.5**

Page 47, fifth paragraph. Delete the second sentence, which begins with “Each ACM will be paired...”, and replace with the following new text:

“Each ACM will be interconnected with the PCS PLC system. A transfer between ACM's at the same end of the vessel, whether due to failure of an ACM or whether because of a manual transfer initiated by operators, will transfer PCS PLC communications seamlessly without need for operator intervention.”

#### **Field Supply Modules (FSM's)**

##### **Section 5.7.6**

Page 48, third paragraph. Revise the second sentence to read as follows:

“Contractor's design shall utilize FSM output contactors such that the switching of FSM's will prevent the loss of propulsion or propulsion control, or a reduction in available propulsion power for more than 10 seconds.”

## **PROPULSION CONTROL AND INSTRUMENTATION SYSTEM**

### **Section 5.9**

#### **General Requirements**

##### **Section 5.9.1**

Page 52, third paragraph. Delete the paragraph commencing with the third sentence, which begins “Two PLC's on each ship end...”, and replace with the following new text:

“Two PLC's shall operate as a synchronized redundant pair, with only one PLC in control at one time. Each PLC shall be installed either into the existing SCR cubicles, into adjoining enclosures, into the Main Propulsion Switchboard, or into the EOS console. In whichever case, the status indicators available on the face of the PLC and associated modules shall be visible through polycarbonate windows installed in the panel covers to allow observation of LED status for problem analysis purposes.”

## **Control System**

### **Section 5.9.2**

Page 56, last paragraph. Revise the first sentence of the paragraph, which begins “Each pair of potentiometers” to read as follows:

“Each pair of potentiometers in each of the pilothouse control handles or the handwheel shall be monitored by the Propulsion Control PLC’s.”

## **Control Station Transfer**

### **Section 5.9.5**

Page 60, first full paragraph. Revise the third sentence in the paragraph, which begins “The determination of which station...”, to read as follows:

“The determination of which station is in control, and the transfer of control from EOS to pilothouse or between the pilothouses shall be performed by Control Transfer logic within the PCS PLC’s.”

Page 60, second full paragraph. Delete the paragraph that begins “The existing Control Transfer PLC’s...” in its entirety.

Page 60, third full paragraph. Delete the paragraph that begins “Control station status shall be sent...” in its entirety.

Page 60, fifth full paragraph. Delete the paragraph that begins “The determination of which station is in control,...” in its entirety.

Page 62, second paragraph. Revise the fourth sentence in the paragraph, which begins “The handwheel-lever mode switch...” to read as follows:

“The handwheel-lever mode switch at the EOS console shall also provide input contacts to the PCS PLC’s to notify of the transfer to alternate control.”

Page 62, fourth paragraph. Revise the first sentence, which begins “At any time, it shall be possible” to read as follows:

“At any time, it shall be possible to bypass the Control Transfer PLC logic and take control at the EOS directly using the Manual Control Override switch on the EOS console.”

Page 62, fifth paragraph. Delete the paragraph, which begins ““Failure of the Control Transfer PLC...”, in its entirety.

## **Propulsion Status and Fault Indications**

### **Section 5.9.7**

Page 64, last paragraph, bulleted items. Delete the fourth bulleted item, which reads “Control Transfer PLC failure”.

## **RELIABILITY / AVAILABILITY**

### **Section 6.0**

## **Failure Modes and Effects**

### **Section 6.1**

Page 69, last paragraph. Revise the second sentence to read as follows:

“No single component or circuit failure shall cause the loss of propulsion or propulsion control, or a reduction in available propulsion power, for more than 10 seconds.”

(note: also see the related revision to the RFP Technical Specifications, Section 5.7.6, herein.)

## **ATTACHMENTS TO THE TECHNICAL SPECIFICATIONS RFP Volume III**

### **TABLE OF CONTENTS**

#### **WSF Dwg. No. 8204-669-099-21, Rev. -**

Due to the replacement of the drawing (see below), revise “Rev. –” to read “Rev. A”.

#### **WSF Dwg. No. 8204-669-099-22, Rev. -**

Due to the replacement of the drawing (see below), revise “Rev. –” to read “Rev. A”.

#### **WSF Dwg. No. 8204-669-099-23, Rev. -**

Due to the replacement of the drawing (see below), revise “Rev. –” to read “Rev. A”.

#### **WSF Dwg. No. 8204-669-099-24, Rev. -**

Due to the replacement of the drawing (see below), revise “Rev. -” to read “Rev. A”.

Attached hereto and incorporated herein is a revised Table of Contents incorporating the above revisions. The revised Table of Contents replaces and supersedes the Table of Contents issued in the original RFP package.

### **DRAWINGS**

Attached hereto and incorporated herein are the following four (4) revised WSF Drawings, which are revised to conform to the RFP Technical Specifications herein:

#### **WSF Dwg. No. 8204-669-099-21, Rev. A**

M/V Elwha Propulsion Control System Functional Block Diagrams

#### **WSF Dwg. No. 8204-669-099-22, Rev. A**

M/V Elwha Propulsion Control System (PCS) I/O List

#### **WSF Dwg. No. 8204-669-099-23, Rev. A**

M/V Elwha EOS Console Elevation Arrangement

#### **WSF Dwg. No. 8204-669-099-24, Rev. A**

M/V Elwha Pilothouse Console Elevation Arrangement

The revised Drawings replace and supersede the “Rev. –” Drawings issued in the original RFP package.

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